

Title (en)

Amplifier arrangement and integrated amplifier circuit suitable for the amplifier arrangement, and display device including said amplifier arrangement.

Title (de)

Verstärkerschaltung sowie integrierte Verstärkerschaltung für die Verstärkerschaltung und mit der Verstärkerschaltung versehene Wiedergabeordnung.

Title (fr)

Circuit amplificateur ainsi que circuit amplificateur intégré convenant pour ce circuit amplificateur et dispositif de reproduction muni de ce circuit amplificateur.

Publication

EP 0314218 A1 19890503 (EN)

Application

EP 88202234 A 19881006

Priority

NL 8702559 A 19871028

Abstract (en)

In an amplifier arrangement, comprising - a transadmittance circuit having an input coupled to an input of the amplifier arrangement and - a transimpedance amplifier having an input coupled to an output of the transadmittance circuit and an output coupled to an output of the amplifier arrangement, in which the transfer function modulus of the transimpedance amplifier has a first-order decrease above a first frequency F1 and a second-order decrease above a second frequency F2, which transimpedance amplifier is negatively fed back by means of a negative current feedback circuit, - the negative current feedback circuit is constituted by a negative feedback impedance whose inverse of the transfer function modulus below the second frequency F2 is smaller than the transfer function modulus of the transimpedance amplifier and which transfer function modulus has a first-order increase above a third frequency F3 so that the transfer function modulus of the negatively fed back transimpedance amplifier has a first-order decrease above a fourth frequency F4 which is substantially equal to the third frequency F3, and a second-order decrease above the fifth frequency F5 which is located above the second frequency F2, - the transfer function modulus of the transadmittance circuit has a first-order increase above a sixth frequency F6 which is substantially equal to the fourth frequency F4, so that the transfer function modulus of the amplifier arrangement has a first-order decrease above the fifth frequency F5, and - the transimpedance amplifier has a low-ohmic current input with an input impedance whose modulus, at least for frequencies below the fifth frequency F5, is smaller than the modulus of the negative feedback impedance, so that the bandwidth of the amplifier arrangement is enlarged.

IPC 1-7

H03F 1/08

IPC 8 full level

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CPC (source: EP KR US)

H03F 1/083 (2013.01 - EP US); **H03F 1/22** (2013.01 - KR)

Citation (search report)

- [A] GB 2105543 A 19830323 - WESTERN ELECTRIC CO [US]
- [A] US 3660773 A 19720502 - FREE MAURICE G
- [A] IEEE JOURNAL OF SOLID-STATE CIRCUITS, Band SC-6, Nr. 6, Dezember 1971, Seiten 347-352, New York, US; R.J. VAN DE PLAASCHE: "A wide-band operational amplifier with a new output stage and a simple frequency compensation"
- [A] PATENT ABSTRACTS OF JAPAN, Band 4, Nr. 48, (E-006)[530], 12. April 1980, Seite 155 E 6; & JP-A-55 020 036 (SANSUI DENKI K.K.) 13-02-1980

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